

Lacunary self-similar fractal sets and intersection of cantor sets

Igudesman K.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The problem on intersection of Cantor sets was examined in many papers. To solve this problem, we introduce the notion of lacunary self-similar set. The main difference to the standard (Hutchinson) notion of self-similarity is that the set of similarities used in the construction may vary from step to step in a certain way. Using a modification of method described in [3], [4], we find the Hausdorff dimension of a lacunary self-similar set.
